1. (currently amended) A method for providing wireless communication, the method comprising:

providing a plurality of frequency channels in each of a plurality of portions of a service area, wherein the plurality of frequency channels are in an unlicensed frequency band, wherein a same frequency channel of the plurality of frequency channels is provided for use in two or more adjacent portions of the service area; and

mitigating interference associated with external interference sources by making particular channels of the plurality of channels available for use by network nodes disposed in the portions of the service area ~~based upon dynamically determined communication link metrics~~ according to a two tier scheduling strategy;

wherein a first tier of the scheduling strategy updates channel assignments at a relatively slow pace and wherein a second tier of the scheduling strategy updates channel assignments in real-time.

2. (original) The method of claim 1, wherein said mitigating interference comprises:

selecting a channel from said plurality of channels for communication with a particular network node using adaptive dynamic channel selection to identify a channel having a best communication attribute with respect to said network node.

3. (currently amended) The method of claim 1, wherein said mitigating interference further comprises:

selecting a time division of said particular channels for use in communicating with particular network nodes based upon ~~said~~ dynamically determined communication link metrics.

4. (original) The method of claim 1, wherein said mitigating interference comprises:

selecting at least two channels from said plurality of channels for communication with a particular network node such that transmission of identical data on said at least two channels is provided for post data selection.

5. (original) The method of claim 1, wherein said mitigating interference comprises:

selecting at least two channels from said plurality of channels for communication with a particular network node such that data is divided for transmission on said at least two channels for time/frequency coding.

6. (original) The method of claim 1, wherein said mitigating interference comprises:

limiting transmission duty cycles of network nodes with respect to each active channel of said plurality of channels.

7. (currently amended) The method of claim ~~1~~ 3, wherein said dynamically determined communication link metrics comprise interference level information.

8. (currently amended) The method of claim~~1~~ 3, wherein said dynamically determined communication link metrics comprise signal propagation level information.

9. (currently amended) The method of claim~~1~~ 3, wherein said dynamically determined communication link metrics comprise traffic load information.

10. (currently amended) The method of claim~~1~~ 3, wherein said dynamically determined communication link metrics comprise quality of service information.

11. (original) The method of claim 1, further comprising:

selecting network nodes for simultaneous use of said particular channels as a function of spatial characteristic groupings of said network nodes.

12. (original) The method of claim 1, wherein said each said frequency channel of said plurality of frequency channels is provided for use in all portions of said service area.

13. (cancelled)

14. (original) The method of claim 1, wherein said mitigating interference comprises assigning a different channel of said plurality of channels for use by a particular network node in an uplink and a downlink.

15. (cancelled)

16. (previously presented) The system of claim 29, wherein the channel management control apparatus makes particular time divisions within the particular channels available for use by the network nodes as a function of dynamically determined channel conditions.

17. (previously presented) The system of claim 29, wherein each channel of the plurality of channels is provided in each communication sector of the plurality of communication sectors.

18. (original) The system of claim 17, wherein said plurality of channels comprise at least 3 frequency channels.

19. (original) The system of claim 17, wherein said plurality of channels are each within an unlicensed band and subject to external interference.

20. (previously presented) The system of claim 29, wherein the plurality of communication sectors comprise communication sectors of a multi-sectored base station.

21. (previously presented) The system of claim 29, wherein the plurality of communication sectors comprise communication sectors of a plurality of base stations.

22. (previously presented) The system of claim 29, wherein the channel management control apparatus is disposed in a central configuration with respect to a plurality of base stations of the communication network.

23. (previously presented) The system of claim 29, wherein the channel management control apparatus is disposed in a distributed configuration with respect to a plurality of network nodes of the communication network.

24. (previously presented) The system of claim 29, wherein the channel management control apparatus makes at least 2 channels of the plurality of channels available for use simultaneously by a particular network node to mitigate the external interference.

25. (original) The system of claim 24, wherein said at least 2 channels transmit identical data simultaneously.

26. (original) The system of claim 24, wherein said at least 2 channels transmit different portions of an information communication.

27. (previously presented) The system of claim 29, wherein the channel management control apparatus makes at least a first channel of the plurality of channels available for use by a particular network node and makes at least a second channel of the plurality of channels available for use by the particular network node to mitigate the external interference.

28. (cancelled)

29. (currently amended) A wireless communication network system comprising:

a plurality of communication sectors of a service area, wherein each communication sector has a plurality of channels associated therewith, and wherein adjacent ones of said communication sectors have at least one same channel of said plurality of channels associated therewith; and

channel management control apparatus making particular channels of said plurality of channels available for use by network nodes of said network system as a function of external interference experienced with respect to one or more channels of said plurality of channels, wherein the channel management control apparatus implements an at least two tier channel scheduling strategy;

wherein a first tier of the channel scheduling strategy is executed centrally and a second tier of the channel scheduling strategy is executed distributedly;

<u>wherein the first tier updates channel assignments at a relatively slow pace and wherein the second tier updates channel assignments in real-time</u>.

30. (canceled) A wireless communication network system comprising:

a plurality of communication sectors of a service area, wherein each communication sector has a plurality of channels associated therewith, and wherein adjacent ones of said communication sectors have at least one same channel of said plurality of channels associated therewith; and

channel management control apparatus making particular channels of said plurality of channels available for use by network nodes of said network system as a function of external interference experienced with respect to one or more channels of said plurality of channels, wherein the channel management control apparatus implements an at least two tier channel scheduling strategy;

wherein a first tier of the channel scheduling strategy updates channel assignments at a relatively slow pace and wherein a second tier of the channel scheduling strategy updates channel assignments in real-time.

31. (previously presented) The system of claim 29, wherein the first tier of the channel scheduling strategy assigns transmission time period opportunities to communication network base station nodes to support groups of subscriber station nodes.

32. (previously presented) The system of claim 31, wherein the second tier of the channel scheduling strategy assigns transmission time periods among subscriber station nodes of the groups of subscriber station nodes.

33. (previously presented) The system of claim 29, wherein the channel management control apparatus makes a different channel of the plurality of channels available for use by a particular network node in an uplink and a downlink.

34. (cancelled)

35. (cancelled)

36. (cancelled)

37. (previously presented) A method for providing wireless communication, the method comprising:

providing a plurality of frequency channels in various portions of a service area, wherein a first frequency channel of the plurality of frequency channels is provided in each of two or more adjacent portions of the service area;

activating the first frequency channel in parallel with respect to the two or more adjacent portions of the service area by selecting network nodes for parallel communication links as a function of spatial characteristic groupings;

determining a spatial signature for network nodes operable in the service area, wherein the network nodes selected for parallel communication links have a compatible spatial signature;

determining compatibility of the spatial signatures by correspondence to a schedule of active radios vector; and

weighting a plurality of schedule of active radios vectors such that a heaviest weighted schedule of active radios vectors provides for a highest number of parallel communication links, wherein the plurality of schedule of active radios vectors comprises the schedule of active radios vector.

38. (original) The method of claim 37, further comprising:

selecting a schedule of active radios vector for grouping network nodes having a compatible spatial signature into is based upon a schedule of active radios vector having a highest weight.

39. (previously presented) The method of claim 37, wherein the step of activating the first frequency channel comprises:

assigning transmission time period opportunities of the first frequency channel to groups network nodes as a function of the spatial signatures.

40. (previously presented) The method of claim 37, wherein the step of activating the first frequency channel further comprises:

scheduling individual time slots of the first frequency channel transmission time period opportunities to particular network nodes as a function of communication demand associated with the network nodes.

41. (previously presented) The method of claim 37, further comprising:

dynamically changing a frequency channel utilized by a particular network node based upon a determined channel quality metric.

42. (previously presented) The method of claim 37, further comprising:

providing simultaneous transmission of a same information content using two frequency channels; and

selecting a valid information content for use from the same information content transmitted using the two frequency channels.

43. (previously presented) The method of claim 37, further comprising:

providing simultaneous transmission of portions of information content using two frequency channels; and

deriving the information content by combining the portions of information content transmitted using the two frequency channels.

44. (previously presented) The method of claim 37, wherein a second frequency channel of the plurality of frequency channels is provided in each of the two or more adjacent portions of the service area.

45. (cancelled)

46. (currently amended) A wireless broadband access network system comprising:

a base station having a plurality of sectors, wherein each of a plurality of channels is associated with each sector of the plurality of sectors; and

a two-tiered scheduler in communication with the base station and providing information as to channels of the plurality of channels that are to be activated in parallel with respect to assigned transmission time period opportunities, wherein a first tier of the scheduler executes centrally and assigns time per group of subscriber stations and a second tier of the scheduler executes distributedly and assigns individual time slots within the assigned time to particular subscriber stations of the group of subscriber stations;

wherein the first tier updates channel assignments at a relatively slow pace and wherein the second tier updates channel assignments in real-time.

47. (original) The system of claim 46, further comprising:

a plurality of base stations having a plurality of sectors, wherein each of said plurality of channels is associated with each sector of said plurality of sectors, and wherein said scheduler is in communication with said plurality of base stations providing information as to channels of said plurality of channels which are to be activated in parallel with respect to assigned transmission time period opportunities.

48. (original) The system of claim 46, wherein said base station comprises:

a plurality of wireless nodes, wherein a wireless node of said plurality of wireless nodes is associated with a sector of said plurality of sectors.

49. (original) The system of claim 48, wherein said wireless nodes comprise:

an access point operable according to an unlicensed wireless spectrum protocol.

50. (cancelled)

51. (previously presented) The system of claim 46, wherein the groups of subscriber stations comprise subscriber stations having similar spatial attributes.

52. (previously presented) A wireless communication system comprising:

a plurality of radios disposed to provide wireless communication links with respect to different portions of a service area, wherein at least a first set of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a first frequency channel;

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a plurality of spatial signature vectors setting forth information for each one of the subscriber stations with respect to the first set of radios, wherein each of the subscriber stations has a spatial signature vector of the plurality of spatial signature vectors associated therewith;

wherein the spatial signature vectors provide information with respect to a combination of radios of the first set of radios that are acceptable to be activated in parallel when a radio of the first set of radios is in information communication with a corresponding one of the subscriber stations.

53. (original) The system of claim 52, wherein said first set of radios comprise a radio of each sector of a multi-sectored base station.

54. (original) The system of claim 52, wherein said first set of radios comprise a radio of adjacent base stations.

55. (cancelled)

56. (cancelled)

57. (previously presented) A wireless communication system comprising:

a plurality of radios disposed to provide wireless communication links with respect to different portions of a service area, wherein at least a first set of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a first frequency channel;

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a plurality of spatial signature vectors setting forth information for each one of the subscriber stations with respect to the first set of radios, wherein each of the subscriber stations has a spatial signature vector of the plurality of spatial signature vectors associated therewith;

wherein vectors of the vector array are assigned a weight corresponding to a number of radios that are activated in parallel associated therewith.

58. (original) The system of claim 57, wherein each said subscriber station is identified with a vector of said vector array having a combination of radios of said first set of radios compatible with the subscriber station's spatial signature vector based upon said weighting.

59. (previously presented) A wireless communication system comprising:

a plurality of radios disposed to provide wireless communication links with respect to different portions of a service area, wherein at least a first set of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a first frequency channel;

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a plurality of spatial signature vectors setting forth information for each one of the subscriber stations with respect to the first set of radios, wherein each of the subscriber stations has a spatial signature vector of the plurality of spatial signature vectors associated therewith;

a scheduler operable to select, as a function of the spatial signature vectors, a vector from the vector array identifying a combination of radios for use in providing communication links to ones of the subscriber stations, wherein the scheduler updates the vector array to indicate the vector is active.

60. (cancelled)

61. (original) The system of claim 59, wherein said scheduler is further operable to assign particular time slots available using said combination of radios to particular subscriber stations.

62. (previously presented) A wireless communication system comprising:

a plurality of radios disposed to provide wireless communication links with respect to different portions of a service area, wherein at least a first set of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a first frequency channel, wherein at least a second group of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a second frequency channel, such that the first and second frequency channels are provided in overlapping portions of the service area;

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a channel selection controller dynamically selecting a frequency channel of the first and second frequency channels having a highest channel quality metric associated therewith for use in communicating with a subscriber station.

63. (cancelled)

64. (previously presented) A wireless communication system comprising:

a plurality of radios disposed to provide wireless communication links with respect to different portions of a service area, wherein at least a first set of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a first frequency channel, wherein at least a second group of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a second frequency channel, such that the first and second frequency channels are provided in overlapping portions of the service area;

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a controller selecting a valid frame from frames simultaneously transmitted using the first and second frequency channels.

65. (previously presented) A wireless communication system comprising:

a plurality of radios disposed to provide wireless communication links with respect to different portions of a service area, wherein at least a first set of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a first frequency channel, wherein at least a second group of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a second frequency channel, such that the first and second frequency channels are provided in overlapping portions of the service area;

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area; and

a controller deinterleaving a frame from data simultaneously transmitted using the first and second frequency channels.

66. (previously presented) A wireless communication system comprising:

a plurality of radios disposed to provide wireless communication links with respect to different portions of a service area, wherein at least a first set of radios of the plurality of radios disposed to provide wireless communication links with respect to the different portions of the service area utilize a first frequency channel; and

a vector array setting forth a plurality of combinations of radios of the first set of radios that are activated in parallel to provide simultaneous communication links with respect to subscriber stations operable in the service area;

wherein the plurality of radios comprise 802.11 compliant access points.

67. (original) The system of claim 66, wherein a medium access control layer utilized with respect to communications via said first frequency channel is not 802.11 compliant.

68. (original) The system of claim 66, wherein a medium access control layer utilized with respect to communications via said first frequency channel is adapted to facilitate synchronous data communication.

69. (original) The system of claim 66, wherein said first frequency channel is in an unlicensed frequency band.